

Understanding Organizational Systems



CST 270 – System Analysis & Design
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Objectives

- Discuss the elements of an organization which interact to shape the organization
- Explain the interdependence of subsystems, environmental factors and the roles of virtual teams/organizations within an organization
- Discuss the benefits of an analyst using a systems perspective to view organization
- Explain the roles of managers at the three levels of managers and discuss organizational culture and its impact on the organization

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Three Main Forces Interacting to Shape Organizations

- Levels of management
- Design of organizations
- Organizational cultures

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Organizations Are Composed of Interrelated Subsystems

- Influenced by levels of management decision makers that cut horizontally across the organizational system
 - Operations
 - Middle management
 - Strategic management
- Influenced by organizational cultures and subcultures

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Organizations as Systems

- We can conceptualize organizations as systems designed to accomplish goals
- Composed of smaller, interrelated systems serving specialized functions
- Specialized functions are reintegrated to form an effective organizational whole.

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System Interrelatedness & Independence

- Systems are interrelated/interdependent
 - Due to a change, other parts of system can be impacted
- Systems process information within their environment (processes transform input to outputs)
 - Boundaries separate systems from their environments
 - boundaries are on a continuum from open to closed
- Planning/Control are necessary for any system
 - Feedback is useful for this reason
 - An ideal system self-corrects or self-regulates itself

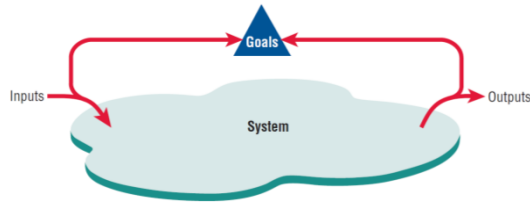
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System Outputs Serve as Feedback that Compares Performance with Goals (Fig. 2.1)



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Organizational Environments

- Community
 - Physical location
 - Demographic profile (education, income)
- Economic
 - Market factors
 - Competition
- Political
 - State and local government
- Legal
 - Federal, state, regional, local laws, and guidelines

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Openness and Closedness

- Open
 - Free flow of information
 - Output from one system becomes input to another
- Closed
 - Restricted access to information
 - Limited by numerous rules
 - Information only on a “need to know” basis

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Virtual Organizational Elements

- A virtual organization has parts of the organization in different physical locations.
- Technology used to bring virtual teams together to work on projects
- Benefits:
 - Possibility of reducing costs of physical facilities
 - More rapid response to customer needs
 - Helping virtual employees to fulfill their familial obligations to children or aging parents

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Taking a Systems Perspective

- Allows system analyst to understand businesses before they begin their tasks
- It is important that members of subsystems realize that they are interrelated with other subsystems
 - Problems occur when each manager thinks that his/her department is the most important
 - Bigger problems may occur when that manager rises through the ranks

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Levels of Management (Fig. 2.19)



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Operations Control

- Oversee the operating details of the organization
 - Make decisions using predetermined rules that have predictable outcomes
- Operations Managers:
 - Focus is on the here and now
 - Use a lot of internal repetitive, low-level information
 - Very dependent on current performance information
 - Frequent users of online, real-time information resources
 - Only a moderate need for past performance/periodic information
 - Don't need/use information that is external for future projections

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Managerial Planning and Control

- Make short-term planning and control decisions about resources and organizational objectives.
 - Decisions may be partly operational and partly strategic
- Middle Managers:
 - Use both short/longer term information
 - Need information in real-time
 - Measure current performance against set standards
 - Very dependent on internal information
 - Need historical and information for future projections

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Strategic Management

- Make decisions that will guide middle and operations managers.
 - Look outward from the organization to the future
 - Work in highly uncertain decision-making environment
 - Define the organization as a whole
- Strategic Managers:
 - highly dependent on information from external sources that supply news of market trends and the strategies of competing corporations
 - high need for information of a predictive nature
 - need for periodically reported information

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Managerial Levels

- Different organization structure
- Leadership style
- Technological considerations
- Organization culture
- Human interaction
- All carry implications for the analysis and design of information systems

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Organizational Culture

- Organizations have cultures and subcultures
 - May be cooperative/competing
 - Learn from verbal and nonverbal symbolism
- Understanding the culture of an organization may help overcome resistance to change

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Verbal Symbolism

- Myths
- Metaphors
- Visions
- Humor

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Nonverbal Symbolism

- Shared artifacts
 - Trophies, etc.
- Rites and rituals
 - Promotions
 - Birthdays, etc.
- Clothing worn
- Office placement and decorations

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Summary

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Questions?



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